

# SEQUENCE LISTING

<110> JAPAN SCIENCE AND TECHNOLOGY CORPORATION

<120> Regucalcin gene-transferred non-human animals

<130> YG2002-18PCT

<140>

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<150> JP P2001-287698

<151> 2001-9-20

<150> JP P2002-177666

<151> 2002-6-18

<160> 4

<170> PatentIn Ver. 2.1

<210> 1

<211> 900

<212> DNA

<213> Rattus norvegicus

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<221> CDS

<222> (1)..(900)

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15

ggg gag tcc cct gtg tgg gag gag gca tca aag tgt ctg ctg ttt gla 96

Gly	Glu	Ser	Pro	Val	Trp	Glu	Glu	Ala	Ser	Lys	Cys	Leu	Leu	Phe	Val		
			20					25					30				
gac	atc	cct	tca	aag	act	gtc	tgc	cga	tgg	gat	tcg	atc	agc	aat	cga	144	
Asp	Ile	Pro	Ser	Lys	Thr	Val	Cys	Arg	Trp	Asp	Ser	Ile	Ser	Asn	Arg		
		35				40						45					
gtg	cag	cga	gtt	ggt	gta	gat	gcc	cca	gtc	agt	tca	gtg	gca	ctt	cga	192	
Val	Gln	Arg	Val	Gly	Val	Asp	Ala	Pro	Val	Ser	Ser	Val	Ala	Leu	Arg		
		50				55						60					
cag	tca	gga	ggc	tat	gtt	gcc	acc	att	gga	acc	aag	ttc	tgt	gct	tig	240	
Gln	Ser	Gly	Gly	Tyr	Val	Ala	Thr	Ile	Gly	Thr	Lys	Phe	Cys	Ala	Leu		
65					70					75					80		
aac	tgg	gaa	gat	caa	tca	gta	ttt	atc	cta	gcc	atg	gtg	gat	gaa	gat	288	
Asn	Trp	Glu	Asp	Gln	Ser	Val	Phe	Ile	Leu	Ala	Met	Val	Asp	Glu	Asp		
				85					90					95			
aag	aaa	aac	aat	cga	ttc	aat	gat	ggg	aag	gtg	gat	cct	gct	ggg	aga	336	
Lys	Lys	Asn	Asn	Arg	Phe	Asn	Asp	Gly	Lys	Val	Asp	Pro	Ala	Gly	Arg		
			100					105						110			
tac	ttt	gct	ggt	acc	atg	gct	gag	gaa	acc	gcc	cca	gct	gtt	ctg	gag	384	
Tyr	Phe	Ala	Gly	Thr	Met	Ala	Glu	Glu	Thr	Ala	Pro	Ala	Val	Leu	Glu		
		115					120						125				
cgg	cac	caa	ggg	tcc	tig	tac	tcc	ctt	ttt	cct	gat	cac	agt	gtg	aag	432	
Arg	His	Gln	Gly	Ser	Leu	Tyr	Ser	Leu	Phe	Pro	Asp	His	Ser	Val	Lys		
		130				135							140				
aaa	tac	ttt	aac	caa	gtg	gat	atc	tcc	aat	ggt	tig	gat	tgg	tcc	ctg	480	
Lys	Tyr	Phe	Asn	Gln	Val	Asp	Ile	Ser	Asn	Gly	Leu	Asp	Trp	Ser	Leu		
145					150					155				160			
gac	cat	aaa	atc	ttc	tac	tac	att	gac	agc	ctg	tcc	tac	act	gtg	gat	528	

Asp His Lys Ile Phe Tyr Tyr Ile Asp Ser Leu Ser Tyr Thr Val Asp	
165 170 175	
gcc ttt gac tat gac ctg cca aca gga cag att tcc aac cgc agg act	576
Ala Phe Asp Tyr Asp Leu Pro Thr Gly Gln Ile Ser Asn Arg Arg Thr	
180 185 190	
ggt tac aag atg gaa aaa gat gaa caa atc cca gat gga atg tgc att	624
Val Tyr Lys Met Glu Lys Asp Glu Gln Ile Pro Asp Gly Met Cys Ile	
195 200 205	
gat gtt gag ggg aag ctt tgg gtg gcc tgt tac aat gga gga aga gta	672
Asp Val Glu Gly Lys Leu Trp Val Ala Cys Tyr Asn Gly Gly Arg Val	
210 215 220	
att cgc cta gat cct gag aca ggg aaa aga ctg caa act gtg aag ttg	720
Ile Arg Leu Asp Pro Glu Thr Gly Lys Arg Leu Gln Thr Val Lys Leu	
225 230 235 240	
cct gtt gat aaa aca act tca tgc tgc ttt gga ggg aag gat tac tct	768
Pro Val Asp Lys Thr Thr Ser Cys Cys Phe Gly Gly Lys Asp Tyr Ser	
245 250 255	
gaa atg tac gtg aca tgt gcc agg gat ggg atg agc gcc gaa ggt ctt	816
Glu Met Tyr Val Thr Cys Ala Arg Asp Gly Met Ser Ala Glu Gly Leu	
260 265 270	
ttg agg cag cct gat gct ggt aac att ttc aag ata aca ggt ctt ggg	864
Leu Arg Gln Pro Asp Ala Gly Asn Ile Phe Lys Ile Thr Gly Leu Gly	
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 <212> PRT  
 <213> *Rattus norvegicus*

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 Asp Ile Pro Ser Lys Thr Val Cys Arg Trp Asp Ser Ile Ser Asn Arg  
 35 40 45  
 Val Gln Arg Val Gly Val Asp Ala Pro Val Ser Ser Val Ala Leu Arg  
 50 55 60  
 Gln Ser Gly Gly Tyr Val Ala Thr Ile Gly Thr Lys Phe Cys Ala Leu  
 65 70 75 80  
 Asn Trp Glu Asp Gln Ser Val Phe Ile Leu Ala Met Val Asp Glu Asp  
 85 90 95  
 Lys Lys Asn Asn Arg Phe Asn Asp Gly Lys Val Asp Pro Ala Gly Arg  
 100 105 110  
 Tyr Phe Ala Gly Thr Met Ala Glu Glu Thr Ala Pro Ala Val Leu Glu  
 115 120 125  
 Arg His Gln Gly Ser Leu Tyr Ser Leu Phe Pro Asp His Ser Val Lys  
 130 135 140  
 Lys Tyr Phe Asn Gln Val Asp Ile Ser Asn Gly Leu Asp Trp Ser Leu  
 145 150 155 160  
 Asp His Lys Ile Phe Tyr Tyr Ile Asp Ser Leu Ser Tyr Thr Val Asp  
 165 170 175  
 Ala Phe Asp Tyr Asp Leu Pro Thr Gly Gln Ile Ser Asn Arg Arg Thr  
 180 185 190  
 Val Tyr Lys Met Glu Lys Asp Glu Gln Ile Pro Asp Gly Met Cys Ile  
 195 200 205  
 Asp Val Glu Gly Lys Leu Trp Val Ala Cys Tyr Asn Gly Gly Arg Val  
 210 215 220  
 Ile Arg Leu Asp Pro Glu Thr Gly Lys Arg Leu Gln Thr Val Lys Leu  
 225 230 235 240

Pro	Val	Asp	Lys	Thr	Thr	Ser	Cys	Cys	Phe	Gly	Gly	Lys	Asp	Tyr	Ser
				245					250					255	
Glu	Met	Tyr	Val	Thr	Cys	Ala	Arg	Asp	Gly	Met	Ser	Ala	Glu	Gly	Leu
			260					265					270		
Leu	Arg	Gln	Pro	Asp	Ala	Gly	Asn	Ile	Phe	Lys	Ile	Thr	Gly	Leu	Gly
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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Primer huRC-1

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Primer huRC-2

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23